
Study explores Internet as a tool for care of diabetic patients

Scott Gottlieb, New York

A new study involving patients with diabetes in the United States will show doctors whether it can be beneficial and affordable to use the Internet to make high-tech house calls.

Upstate Medical Center in Syracuse, New York, and Columbia University in New York City will use a \$28 million federal grant to deliver health care through the Internet into the homes of 750 rural and inner-city diabetic patients over the next 4 years.

The grant from the US Health Care Financing Administration will provide patients with free personal computers with programming based on Microsoft Windows, access to the Internet, and health monitoring equipment.

The study will recruit 1,500 patients from New York. One half of this group of patients will receive the computers and diagnostic equipment, and the other half will continue with only the usual care from their doctors. The project includes a control group so that doctors can compare health care costs and benefits in the two groups.

"Up front, obviously telemedicine is going to cost more than normal care," said Ruth Weinstock, Director of the State University of New York's Joslin Center for Diabetes in Syracuse. "You have to compare that to the cost of renal failure, and going on dialysis, or the cost of having a stroke, or going blind. We hope to prevent blindness, strokes, and heart attacks. We hope it's obvious that telemedicine is better in the long run."

She said that telemedicine offers two ad-

vantages for patients: comprehensive information from an expanded American Diabetes Association web site, and limitless chances for rural patients to receive treatment. "When the winter comes, and the snow comes, often the patients cannot see their health care providers as often as would be optimal," Weinstock said.

"This way, if their blood sugar is very high, we can see that as soon as it happens and make adjustments. They can get 'visits' as often as necessary."

Under the pilot program, patients with computers will have use of a blood sugar monitoring device, an automatic blood pressure cuff, and a camera hooked up to the computer. The camera will allow doctors to look at patients' skin lesions without requiring patients to leave their homes. Patients will have the equipment for at least 2 years.

After receiving training, patients will check their blood sugar level, blood pressure, and other factors and will enter the data into a secure web site for analysis. Patients will receive information through their computers on how to manage their disease. If a patient's data fall outside an acceptable range, an automatic alert will be sent via the Internet to a doctor or nurse.

"Diabetes, more than most other chronic diseases, requires daily self-management," Weinstock said. "One cannot take a vacation from diabetes. We want to give people greater access to information and offer more timely intervention."